

*Washington
Park
Arboretum
Bulletin*

Published by
the Arboretum
Foundation

Spring 2002

\$5



Washington Park Arboretum Bulletin
Published quarterly by the Arboretum Foundation
for the Washington Park Arboretum

Washington Park Arboretum

The Arboretum is a 230-acre living museum displaying internationally renowned collections of oaks, conifers, camellias, Japanese maples, hollies and a profusion of woody plants from the Pacific Northwest and around the world. Aesthetic enjoyment gracefully co-exists with science in this spectacular urban green space on the shores of Lake Washington. Visitors come to learn, explore, relax or reflect in Seattle's largest public garden.

The Washington Park Arboretum is managed cooperatively by the University of Washington and Seattle Parks and Recreation; the Arboretum Foundation is its major support organization.

Graham Visitors Center

Open 10 AM—4 PM daily;
holidays, NOON—4 PM.

Closed Thanksgiving and the Friday after,
Christmas and New Year's Day.

The Arboretum is accessible by Metro bus #43 from downtown Seattle and the University of Washington campus

Arboretum Foundation

The Arboretum Foundation is a nonprofit organization established in 1935 to ensure stewardship for the Washington Park Arboretum and to provide horticultural leadership for the region. The Foundation provides funding, volunteer services, membership programs and public information in support of the Arboretum, its plant collections and programs. Volunteers operate the gift shop, conduct major fundraising events, and further their gardening knowledge through study groups and hands-on work in the greenhouse or grounds.

2300 Arboretum Drive East, Seattle, WA 98112

206-325-4510 voice / 206-325-8893 fax

206-726-1954—events hotline

www.arboretumfoundation.org

Office hours: 8:30 AM—4:30 PM weekdays

Gift shop hours: 10 AM—4 PM daily

Officers of the Arboretum Foundation

Board of Directors

Deborah Andrews, Executive Director

Fred Isaac, President;

Cynthia Duryee, Vice

President;

Mike Allen, Vice President;

James Tupper, Secretary;

Kate Roosevelt, Treasurer;

David E. Hervey, Immediate

Past President

University of Washington

The University of Washington manages the Arboretum's collections, horticultural programs, facilities and education programs through its Center for Urban Horticulture.

206-543-8800 voice / 206-325-8893 fax

Office hours: 8 AM—5 PM weekdays

www.wparboretum.org

Washington Park Arboretum

John A. Wott, Ph.D., Director

Center for Urban Horticulture

Thomas M. Hinckley, Ph.D., Director

Seattle Parks and Recreation

The City of Seattle owns the Arboretum's land, including the buildings. Seattle Parks and Recreation is responsible for routine maintenance within the Arboretum and manages and operates the Japanese Garden.

206-684-4556 voice / 206-684-4304 fax

Ken Bounds, Superintendent

Washington Park Arboretum Bulletin

Lee Cuninggim Neff,
Editor

Constance Bollen,
Graphic Design

Joy Spurr, Photography
(unless otherwise noted)

Editorial Board

Tom Berger, The Berger
Partnership, Landscape
Architects

Pam Perry, Parsons Public
Relations

Jeannine Curry,
Arboretum Foundation

Richard W. Hartlage,
Elisabeth C. Miller
Botanical Garden

Daniel J. Hinkley,
Heronswood Nursery

Joan Hockaday, Author

Steven R. Lorton, Northwest
Bureau Chief, *Sunset*
Magazine

Ciscoe Morris, Horticulturist

Myrna Ougland,
Heronswood Nursery

Jan Pirzio-Biroli,
Arboretum Foundation
David Streatfield, UW Dept.
of Landscape Architecture
Bryan Taulbee,

Arboretum Foundation
Eleanor Thienes, Landscape
Designer

Brian Thompson, Elisabeth
C. Miller Library, CUH

Cass Turnbull, Plant
Amnesty Founder

Martha Wingate, Writer

Botanical Editors

Randall Hitchin, Registrar
and Collections Manager

Jan Pirzio-Biroli

Martha Wingate

**For a rate card or other information about
advertising in the *Arboretum Bulletin*,
please call the Foundation office, 206-325-4510.**

**Spring 2002 Volume 64. Issue 1.
© 2002 The Arboretum Foundation.
ISSN 1046-8749.**

CONTENTS

- | | |
|--|---|
| <p>2 We Have A Lot To Be Grateful For—<i>Deborah Andrews</i></p> <p>3 Combinations Unlocked: The Whys and Wherefores of Favorite Plant Combinations. #3: “Serendipitous Design” in a Woodland Garden —By <i>Cass Turnbull</i></p> <p>5 HORT 101 <i>A Glossary of Horticultural Terms</i></p> <p>7 Lewis & Clark’s Discoveries Rediscovered—<i>Joan Hockaday</i></p> <p>12 Restoring Still Waters: Forty Years of Damage Now Ended for Japanese</p> | <p>Garden Pond—<i>Elizabeth Moses & Jan Pirzio-Biroli</i></p> <p>17 Northwest Natives of Choice —<i>Nancy Davidson Short</i></p> <p>24 Horticultural Exhibits, Alluring Plant Collections—<i>John A. Wott</i></p> <p>26 Happy Birthday, Great Plant Picks! —<i>Richard Hartlage</i></p> <p>27 Continuing Inspiration: Rhododendron Hybridizers of the Middle Era —<i>Lee C. Neff</i></p> <p>30 IN A GARDEN LIBRARY: Guides for Growing Ferns Gracefully—<i>Sue Olsen</i></p> |
|--|---|



ABOVE: This beautiful photograph of the sumptuous, pink blossom of *Camellia japonica* ‘Hino Maru’ was taken in 1999 on March 27. You can see it for yourself in the Arboretum, right now, by seeking it out at grid map coordinates 8-3E.

ON THE COVER: The salmonberry (*Rubus spectabilis*) was “now in bloom” Meriwether Lewis observed on March 25, 200 years ago. Two weeks later the “pale scarlet petals” drew another long diary entry during Lewis’ Columbia River ascent. This botanical image “Drawn & Engraved by W. Hooker,” the British illustrator, first appeared in botanist Frederick Pursh’s 1814 “*Flora Americae Septentrionalis*,” published in London. Meriwether Lewis had earlier paid Mr. Pursh to describe and illustrate the Lewis and Clark journals, but fate intervened. Details inside, page 7. Botanical images, courtesy of The Oregon Historical Society.

We Have A Lot To Be Grateful For

The Arboretum Foundation recently received a bequest of \$360,000! While we are always saddened by the loss of one of our friends, we appreciate all the wonderful work the gift will accomplish. We are grateful that the donor chose to contribute to the Arboretum in a way that will contribute for years to come.

I am particularly grateful for the Board members and volunteers who recently devoted much of their time to the success of the Northwest Flower & Garden Show and all that it entails. Our display garden was awarded a bronze medal, a splendid honor. But more important, the devotion of the people working on the project was astonishing. Building a garden requires a team of people committed to the mission of the Arboretum, willing to work in cold and sometimes uncomfortable conditions, to gather plants in the rain and to work until the wee hours to finish the job. I think the display garden, more than any other project that we undertake, shows how well the partnership between the city, the university and Arboretum Foundation is working. The UW staff and crew are invaluable, as are their plant expertise and willingness to dig in when needed. They are always ready to lend a hand in any way they can. Seattle Parks & Recreation provides construction workers who help with building the set. We only see this team once a year, but their contribution to the effort is essential.

With an expanded event venue, Preview Party volunteers had new challenges to face this year. They worked long and hard developing new ideas to make this year's event a



A robust, native evergreen, salal (*Gaultheria shallon*) is ubiquitous in western Washington forests. Although it can be aggressive in garden settings, its abundant, pendant flowers and lustrous leaves recommend it as a woodland ground cover.

success. The silent auction at the party expanded to over 70 items, all related to the Arboretum or gardening. The garden bench auction that takes place during the Flower Show raised more per bench than last year, its first. These combined efforts—the party, silent auction and bench auction—raised over \$90,000, the most in the 14-year history of our participation in the Northwest Flower & Garden Show.

And while all the activity surrounding the Flower Show and party is taking place, other volunteers are working on the book sale, garden tours, garden competition and myriad other projects. We are grateful for this increasing abundance of community support and participation!

Deborah Andrews, Executive Director,
Arboretum Foundation

COMBINATIONS UNLOCKED

The Whys & Wherefores of Favorite Plant Combinations

3: "Serendipitous Design" in a Woodland Garden

TEXT AND PHOTOGRAPHS BY CASS TURNBULL

Some people, I know, have a real gift for design. They can visualize wonderful combinations of bold and delicate beauty, or put together previously unthinkable combinations of colors—colors you would never find on a refrigerator or an overcoat, but



which look smashing in the garden. I'm not one of those people. Like the rest of the mortal gardeners of the world, I rely heavily on luck, or perhaps I should call it "serendipitous design."

When I planted my garden twenty years ago, I knew little about gardening,

The soft wine red of the lenten hellebore (*Helleborus x hybridus*, above) is elegant in almost any setting, but when combined with natives, *Trillium ovatum*, bleeding heart (*Dicentra formosa*), and the mottled trunks of vine maple (*Acer circinatum*), the tapestry is particularly rich and intricate.



but I was very interested and learning fast. Since then, I have deleted many trees, shrubs, vines and perennials and replaced them with better stuff. But one corner (I've always called it the "wild" or woodland garden) has held up well. It continues to delight me as it works its way through the seasons. The basic structure is provided by three vine maples (*Acer circinatum*) and a few native sword ferns (*Polystichum munitum*). The trees were tiny when I brought them home, but when I came in after planting them, I remember hearing that it was Arbor Day. Now they are two stories high and gathering lichens and moss on their trunks.

The year starts early when the snowdrops (*Galanthus* species) and hellebores bloom. Both these plants should be in every garden. Snowdrops increase and move about the yard, probably spread by squirrels. They bloom in January and early February when all else is bare. How they lift the heart! The hellebores are the lenten rose (*Helleborus x hybridus*), and after trying several others, they are still my favorite. Although they aren't native to the Northwest, they look and act as though they could be. They are perfect companions for rhododendrons and add a much needed understory in mature gardens. Their dusky purple blooms nod among shiny green leaves. They seed themselves, not too vigorously, but increase their number at a gratifying pace. The new blooms appear in a variety of different shades, from deep wine to lighter maroon and even creamy tints.

Soon they are joined by some native trilliums (*Trillium ovatum*) that bloom white and fade to pink. I used to have forget-me-nots (*Myosotis sylvatica*) with their tiny blue flowers forming a carpet between the hellebores and trilliums. But they have been

**"I should mention here
that this is not a
faint-hearted planting....
I am fond of several
thuggish plants....
All they really need is
a bit of refereeing
and a certain amount
of discipline."**



outdone by the native bleeding heart (*Dicentra formosa*). Believe it! The bleeding heart foliage adds the perfect contrast to the bolder leaves of trillium and hellebore. And as all seasoned gardeners know, they are one of those special plants that hold raindrops like diamonds in their emerging leaves, as if presenting treasures to be admired. The pink hearts add their own interest to the mix and carry on as the trilliums fade. A few merry bells (*Uvularia grandiflora*) pop up to add a dash of yellow. And

occasionally a lady's slipper (*Cypripedium* species) will reappear too.

I should mention here that this is not a faint-hearted planting. Wild bleeding heart and other vigorous choices have crowded out several delicate plants, such as shooting stars (*Dodecatheon* species), Dutchman's breeches (*Dicentra cucullaria*), and *Hepatica*. This is the "wild garden" for more than one reason! I must admit I am fond of several thuggish plants. They do so well, and with no care. I think the trick is just to combine them with other equally strong-willed plants—characters I sometimes call "vicious invasives"—that can hold their own. All they really need is a bit of refereeing and a certain amount of discipline.

After the bleeding heart recedes, up comes one of my favorite groundcovers—*Vancouveria hexandra*, like a miniature epimedium. The small, irregular leaves seem to float in the air, delicately suspended on wire stems. And it sends up tiny inside-out flowers, like white parachutes. I call plants like this "twinklies." And when I analyze perennial beds, I look to see what's missing: a bold (perhaps a hosta), a twinkly (such as

continues on page 29

HORT 101

Test your horticultural vocabulary with these terms used in this issue!

ARCHIBALD MENZIES (1754-1842)

In 1789, Menzies was appointed to the post of surgeon and naturalist on Captain Vancouver's H M S *Discovery*. During Vancouver's voyage to Chile and western North America, Menzies studied the climate and vegetation and collected the seeds of many trees, including our native madrone, *Arbutus menziesii*.

DAVID DOUGLAS (1799-1834)

A Scotsman from Scone, Douglas was an intrepid plant-hunter who first came to the west coast of North America in 1825. He was credited with discovering and introducing to European gardens quite a few American plants including the Douglas fir (*Pseudotsuga menziesii*), flowering currant (*Ribes sanguineum*) and California poppy (*Eschscholzia californica*). He was probably killed by a bull in Hawaii after falling into a bull pit.

INTERNODE, (in' tər nōd'), noun

The space between two nodes or joints, the points at which leaves are attached; the part of a plant stem between two nodes.

HIERARCHICAL PLANT CLASSIFICATION: CATEGORIES

All plants are categorized by family, genus and species and are assigned Latin names to indicate how they are classified. For instance, *Mahonia aquifolium* is in the barberry family (Berberidaceae, from the Arabic word, *berber*). All members of a plant family share some basic features. Members of the same genus (in this case, *Mahonia*, named for the American horticulturist Bernard McMahon) share a wider range of characteristics. The genus name is

always capitalized; it is followed by the specific epithet which always begins with a lower case letter. Plants in the same species (*Mahonia aquifolium*) resemble one another and interbreed freely.

Further subcategories within species (intraspecific categories) are used. They are indicated by an additional name following the abbreviation ssp. (subspecies), var. (variety), or f. (form). For example, a variety of our native clematis with unusual, deeply dissected foliage is called *Clematis occidentalis* var. *dissecta*.

A cultivar (a contraction from **culti**-vated **variety**) has been selected and has clearly distinct, stable characteristics which are maintained through vegetative propagation. Cultivar names follow a plant's botanical name and are put in single quotation marks. For example, the elegant form of our native currant that was selected at Strybing Arboretum has been named *Ribes sanguineum* 'Strybing Pink.'

PTERIDOLOGICAL, (ter' i dl oji' kəl), adj.

Having to do with **pteridology** (ter' i dol'a jē), the branch of botany dealing with ferns and related plants. **Pteridologist.**

SEPTENTRIONALIS, (sěp' tēn tri ō nā'lis), adj., obsolete

Of the north, northern; boreal.

WITCHES' BROOM, noun

Found on woody plants, an abnormal, brush-like growth of small, thin branches which may be caused by physiological or biological stress. Cuttings of witches' brooms can be propagated and grown as dwarf plants.



Salal (*Gaultheria shallon*). The “very thick” salal shrubs Meriwether Lewis described as “abounding in this neighbourhood” of Fort Clatsop on February 8, 1806, still survive in abundance today along the Northwest coast and in the Arboretum.

Lewis’ reconnaissance was then noted by authors abroad: “This elegant evergreen shrub is in high esteem among the natives, on account of its berries, which they call Shallon, and which name I have adopted here,” botanist Frederick Pursh wrote in his 1814 book, “*Flora Americae Septentrionalis*.” This botanical image, “Drawn & Engraved by W. Hooker,” appeared in Mr. Pursh’s book, published in London.

Lewis & Clark's Discoveries Rediscovered

BY JOAN HOCKADAY

Two hundred years ago, when winter-weary travelers camped on the stormy Columbia River and described Washington's native plants for the first time, spring-time seemed a distant memory.

President Jefferson waited back in Washington for seeds and journals from his Corps of Discovery. East Coast scientists cleared shelf space for expected pressed plants. Philadelphia gardeners dug deep, hoping to plant new ornamentals and edibles. But by the last week of March, 1806, the explorers just wanted the fleas to disappear and the rain to stop.

Hemmed in by high tides, fierce winds and rain dripping through hemlock and cedar trees, Captain Meriwether Lewis and his corps of 30 men—and one woman with one baby and one dog—huddled by the Fort Clatsop fire, or hunted elk, or traded berries, roots and skins with Indians to while away the three-month encampment before their March 23 start for St. Louis.

In such horrible weather conditions, drying plant specimens was extremely difficult, so diary-keeping became the botanical advancement of each winter day.

Today, we take for granted first impressions of our wild or garden-worthy Northwest



plants. Salmonberry, salal, huckleberry, hemlock, Douglas-fir, big-leaf and vine maples, to name just a few, are recorded in rich detail in Meriwether Lewis' journals:

"There is a tree common to the Columbia river below the entrance of the cataract river [Klickitat River in the Columbia Gorge east of White Salmon, Washington] which in it's appearance when divested of it's foliage, much resembles the white ash; the appearance of the wood and bark is also that of the ash...the leaf 8 inches in length and 12 in bredth...the fruit is a winged seed somewhate like the maple."

Immediately following that February 10 entry, Lewis then tells us he observes a similar, but smaller tree, new to science in the United States:

"In the same part of the country there is also another growth which resembles the white maple in it's appearance, only that it is by no means so large; seldom being more than from 6 to 9 inches in diamater, and from 15 to 20 feet high; they frequently grow in clusters as if from the same bed of roots spreading and leaning outwards. the twigs are long and slender...the leaf...is 3 inches in length, and 4 in width."

These two familiar trees, known to most

Named in honor of Captain William Clark, the **ragged robin** (*Clarkia pulchella*) above, was unknown to science when discovered and described by Meriwether Lewis, July 1, 1806, during encampment along the Clearwater River in Idaho.

This sketch first appeared in Frederick Pursh's 1814 "Flora," along with credit to Captain Lewis for discovery. The bitterroot flower—*Lewisia rediviva*—was named by Mr. Pursh in honor of Captain Lewis.

Northwest gardeners or hikers, are the big-leaf maple (*Acer macrophyllum*) and the vine maple (*Acer circinatum*), accurately described in a mid-winter journal two hundred years ago. The journals of both Lewis and his co-captain William Clark show a sketch of the vine maple leaf, probably drawn from the dried specimen Lewis collected the previous fall in the Columbia Gorge but finally described at Fort Clatsop.

Conifers

Enormous conifers, grander than any seen along the trail from St. Louis, and many new to American science, get full treatment in journal entries during the long winter stay on the coast:

"There are sveral species of fir in this neighbourhood," Lewis observes on February 4. The first, "a species which grows to immence size; very commonly 27 feet in the girth six feet above the surface of the earth," describes the Sitka spruce (Picea sitchensis), also unknown in the United States at this time.

The second conifer *"is next in dignity in point of size,"* Lewis enters in his diary the following day. *"It is much the most common species, it may be sad to constitute at least one half of the timber in this neighbourhood...the wood is white throughout and reather soft but very tough...the stem usually terminates in a very slender pointed top like the cedar...the cone is remarkably small not larger than the end of a man's thumb,"* Lewis writes of the western hemlock (*Tsuga heterophylla*).

In the February 6, 1806, journal entries of both Lewis and Clark, the third, fourth and fifth conifers are fully described with impressive eye to minute details of growth habit and everyday usefulness. (President Jefferson had asked both officers to keep journals, in case one of the diaries was drenched under a capsized canoe load or was otherwise lost to the elements during their two-year journey. Lewis, however, was the author of the detailed

botanical observations; Clark occasionally illustrated Lewis' text.)

Plants in the heather family—salal, evergreen huckleberry and cranberry, at their evergreen best during this deciduous time of year—receive special praise from Lewis in his winter diary.

Salal (*Gaultheria shallon*) is repeatedly mentioned, not only for its handsome foliage and *"deep purple berry about the size of a buck Shot,"* but also for practical purposes, such as elk feeding *"much"* on salal leaves, and native Indians thriving on salal's dried berries.

Lewis initially thought this new plant, salal, was a *"loral"* [laurel] relative, but within a month, after studying botanical books brought along for reference, Lewis changed his mind.

The evergreen huckleberry (*Vaccinium ovatum*) *"retains its viridure very perfectly during the winter and is a beautifull shrub,"* Lewis observes in his January 26 journal. Of the late-bearing berries he adds on February 11, *"The natives eat this berry when ripe but seldom collect it in such quantities as to dry it for winter uce."*

Two Oregon grapes, the 'tall' (*Mahonia aquifolium*) and the 'dull' (*Mahonia nervosa*), earn detailed write-ups in Lewis' February 12 entry: *"There are two species of evergreen shrubs which I first met with at the grand rappids of the Columbia and which I have since found in this neighbourhood also; they grow in rich dry ground not far usually from some watercourse. the roots of both species are creeping and celindric. the stem of the 1st is from a foot to 18 inches high and as large as a goos-quill..."* His endnote, stating *"I do not know the fruit or flower of either,"* reveals the reality of plant-hunting during deepest winter months.

Edible Plants

Handsome as these good-looking plants appear in winter on the West Coast, and as



Oregon grape (*Mahonia aquifolium*) The tall Oregon grape, described in detail by Meriwether Lewis during winter encampment on the coast but seen later “in blume” on April 9 upriver, in the Columbia Gorge.

Originally called *Berberis aquifolium*, there has been long-standing disagreement about whether *Mahonia* is a valid genus or should be included in the genus *Berberis*, as explained by Dr. Arthur Kruckeberg in “Gardening with Native Plants of the Pacific Northwest.”

This image first appeared (identified as *Berberis aquifolium*) in Frederick Pursh's own 1814 “Flora,” published in London. Before the War of 1812, Mr. Pursh lived in Philadelphia, met Captain Lewis, and agreed to illustrate the Lewis and Clark journals.

illustrated by skilled artists years later, humble and necessary roots, berries and food-producing plants get as much attention and as many diary entries by hungry corpsmen.

The blue camas root (*Camassia quamash*) saved the men from near starvation on the high plain at Weippe, Idaho, the previous autumn, and the root of the wapato (*Sagittaria latifolia*), similarly saved the corps from disaster on the Columbia River wetlands near Portland, Oregon, later that year.

Columbia River Indians bartered with neighboring tribes and the Corps of Discovery for this potato-like root which the men found pleasing. "*We live sumptuously on our wappetoe...*," Lewis remarks on March 4, before the supply ran out. Found only in a 70-mile stretch of river, and harvested by dislodging roots under water, this delicacy was highly prized.

Berries of any kind received extra attention in diary entries; garden-worthiness was of less concern than imminent starvation and satisfaction. Sprinkled throughout the journals, but especially beginning with the January 16 entry, Lewis takes great care to describe the berrying plants and their production value, and ultimately, to bring back dried specimens for scientific study.

The evergreen huckleberry was one of the few plants collected over the winter at Fort Clatsop, along with the deer fern and salal; but heading back upriver in spring, Lewis found conditions more suitable for collecting rather than journal keeping. Thus, some of Lewis' descriptive labels, now housed with specimens at the Academy of Natural Sciences in Philadelphia, are valuable clues to the nature of each plant discovery.

The Fate of the Lewis & Clark Collection

That we have any dried plant specimens at all to study today, that we have any of Meriwether Lewis' plant discoveries and

collections to admire, is astonishing, in light of developments after the corps returned in triumph to St. Louis in September, 1806.

President Jefferson immediately dispatched Captain Lewis—who was Jefferson's personal secretary until appointed head of the western trip—to Philadelphia to oversee botanical and publishing details. Jefferson expected the journals' imminent publication.

But Lewis' untimely death two years later (some say by suicide) contributed to costly delay in publication and, ultimately, in crediting discovery. With British, Spanish and American explorers all itching to "discover" the West, timing was important; exploration was the goal, but scientific acknowledgement at home was of equal value.

Enter, or intrude, depending on one's bias, Frederick Pursh, a young botanist in residence, first in Philadelphia when Lewis visited in 1807, and later in London preparing his "*Flora Americae Septentrionalis*," published in 1814. Lewis had relied on scientists to help compile the botanical notes accompanying his specimens and observations and paid Pursh to illustrate and organize his plant discoveries. Indeed, to the great dissatisfaction of President Jefferson, Pursh's writings and illustrations appeared seven years later, in London, not attached to the official journals of Lewis and Clark, also published finally in 1814, in America.

As Captain Lewis and President Jefferson had originally hoped, Pursh's illustrations, intended for Lewis and Clark's book almost 200 years ago, are finally published here with Lewis' plant observations.

In fairness, and to his credit, Pursh did honor Lewis and Clark with the designation of new genera. The ragged robin (*Clarkia pulchella*) and the bitterroot (*Lewisia rediviva*) brought back by Lewis from the expedition now bear the names of its two captains.

Pursh also credits Lewis for each of the approximately 130 Western American plant discoveries cataloged in the London book,

although some of the discoveries are also credited to Scottish explorer Archibald Menzies who searched the coastline of British Columbia and northern Washington 13 years earlier.

One rare copy of Pursh's 1814 "Flora," with color illustrations, is in the Oregon Historical Society's library in Portland; a second book, with only black and white illustrations, is in the University of Washington's Natural Sciences Herbarium in Hitchcock Hall. A third copy of the 1814 edition, housed originally in the fire-damaged Elisabeth C. Miller Library rare book room, is now restored and, although uncataloged, is available for view at the Suzzallo-Allen Library's Special Collections room, also at the university.

The Lewis and Clark herbarium sheets are now safely back in Philadelphia (although a few sheets have been lost), and their complete journals have recently been reissued in 13 volumes by the University of Nebraska Press, edited by Gary E. Moulton.

The bicentennial of the Lewis and Clark expedition begins next year, with events planned from Monticello to the Columbia. Meanwhile, Northwest gardeners daily rediscover and enjoy Lewis and Clark's discoveries, in our gardens and in our appreciation of native plant landscapes. ∞

The journal entries of Meriwether Lewis are reprinted here as spelled, punctuated and written in his original 1806 journals and as reproduced in the University of Nebraska volumes issued between 1986 and 2001. Volume 6 of "The Journals of the Lewis & Clark Expedition," which covers the winter at Fort Clatsop, was published in 1990. Volume 12, "Herbarium of the Lewis & Clark Expedition," was published in 1999.

Joan Hockaday is on the Bulletin's editorial board and is the author of "The Gardens of San Francisco," Timber Press, 1988, now out of print.

FLORAbundance

THE ARBORETUM
FOUNDATION'S 53 ANNUAL

Spring Plant Sale

★★★

**Dozens of vendors
and specialty nurseries
present their finest
perennials, shrubs, trees,
native, groundcovers,
and unusual annuals.**

★★★

**Saturday, April 27
10 AM to 5 PM**

**Sunday, April 28
10 AM to 3 PM**

**Building 30,
Sand Point / Magnusson Park
7400 Sand Point Way NE, Seattle
All indoors—
plenty of free parking!**

**At the Arboretum:
Plant Donations open for sales during
FLORAbundance hours!**

★★★



Arboretum Foundation

Restoring Still Waters

FORTY YEARS OF DAMAGE

NOW ENDED FOR JAPANESE GARDEN POND

BY ELIZABETH MOSES AND JAN PIRZIO-BIROLI

If you had wandered into the Arboretum's Japanese Garden at the rainy end of January, you could have watched a crane, over 100 feet tall, gently, slowly, lower huge rocks—one four to six ton giant at a time—into assigned locations on the pond's shoreline. A crew of up to six people adjusted the rocks' positions to the exact requirement of Hoichi Kurisu, Landscape Architect, hired by the Seattle

Department of Parks & Recreation as a special consultant in charge of rock placement.

Restoration of the shoreline became urgent because the rate of erosion had accelerated in recent years, to the extent that some of the major shore pines were being undercut. In some places, the shoreline had receded four feet.

As a result, the Japanese Garden closed early last fall to allow extra time for a

The tripod helps those restoring the pond as they carefully place rocks. Visible here are the layers of the restoration: "mirafi," held in place by a base course of small, round rocks and larger "arming" rocks, all providing a base for larger landscape rocks.





Masa Mizuno with pines he prunes annually.

thorough renovation of the ponds and a revision of the water system. After more than 40 years (the Garden opened originally on June 5th, 1960), erosion of the shoreline by wind and waves and resulting sedimentation had become a serious matter. There had been minor repairs—the last in 1991—but none had dealt with underlying problems.

Shoreline damage, occurring primarily along the unreinforced, east side of the pond and the edges of islands, was caused not only by many years of water movement, but also by the lively antics of the koi at mating time and by the extensive tunneling of muskrats.

Rebuilding the Eastern Shoreline

For this major renovation, the pond was almost completely drained to permit access to the shoreline, and more than 100 cubic yards of sediment were removed. The restoration process first involved installation of a geofabric material called “mirafi” (miracle fiber) to protect the shoreline. To secure the fabric, it was covered with a base course of



Mallards dabble in shallow water as the *dobashi* is dismantled.

small, round rocks. Larger (“arming”) rocks were then placed, and remaining crevices were filled with cobble to provide a firm base for landscape rocks and to discourage muskrats’ tunneling. Finally the crane placed the major rocks which would be visible when the ponds were refilled with water.

Concern about the lack of aesthetically essential moss on the newly quarried rocks was addressed by Jim Thomas, the Japanese Garden’s Head Gardener, who indicated that moss will be taken from older stones, applied to the new ones, and will age gracefully over the next few years.

Water Pumping Installation

The pond’s original water source started at the high, southwest corner of the garden. From there it flowed over the falls, the smaller waterways, and out into the main pond where it left the garden near the wisteria arbor at the northeast corner, joining the Arboretum’s basic water system. It took thirteen days for the water to turn over.

With the newly installed water system, recycling is completed in two to three days, which is much healthier for the koi. After following the same route as before, water exits near the wisteria and flows through an underground pumping station outside the fence. From there, it is sent around the northeast corner of the Garden to a 10 by 20-foot filtration house which is outside the garden and partly above ground, but well concealed. From there, water is routed around the north and west sides, outside the garden, to the southwest corner and over the waterfall again.

CONSULTANTS, CONTRACTORS, STAFF

Koichi Kobayashi: Landscape Architect, Seattle—Project Designer.

Hoichi Kurisu: Landscape Architect, Florida—Consultant regarding shoreline revision.

Masa Mizuno: Garden Consultant, Portland, OR.

Ted Maranda: Engineer, Edmonds, WA—Specialist in water systems and designer of new Japanese Garden system.

ILIAD, Inc.: Landscape firm, Seattle—General Contractor. Partner Ira Denison, in charge.

Kaz Ishimitsu: Bridge Contractor, Seattle—Originally built bridge.

**Seattle Department of Parks & Recreation Personnel
Laura Scharf: Project Manager.**

Jim Thomas: Head Gardener, Japanese Garden.

Michele Finnegan: Liaison from Parks Department to Japanese Garden.

Beside the waterfall, there are three additional inlets to the pond—one near the peninsula on the east side, one in the harbor bay, and a third below the viewing shelter (the *Azumaya*) at the northwest corner, heading east into the pond; these inlets also contribute to the rapid, two- to three-day exchange.

Additional Restoration

Two unrelated problems were also addressed last winter, since the garden was already being so heavily disturbed. First, four major pines across the path from the Emperor's gate on the east shore were replaced. Two of the original pines, including one that had been planted too deeply, had a fungal disease. The four new pines, which Hoichi Kurisu grew in his Portland, OR, nursery, are all well sculpted in the Japanese manner and are 10 to 14 feet tall, large enough to belong in a well-established garden. Of the same species as the original pines, *Pinus contorta*, they will serve admirably. Masa Mizuno, who annually prunes the Garden's pines, will continue to consult with the Parks Department staff and to prune the conifers.

The second project was the repair of the earthen bridge (the *dobashi*). The decking, made of small branches, was rotting and needed to be replaced. To achieve this, the entire bridge was removed and reconstructed by Kaz Ishimitsu, its original builder in 1960.

Waterfall Revealed

While these major projects were undertaken throughout the Garden by contractors and city staff, the Garden's Jim Thomas and his crew continued their detailed maintenance of the collections. At the southeast corner, they pruned and/or removed overgrown plants to make the watercourse more visible once again.

Animal Life

Before these projects could be accomplished, early removal of the koi was needed to permit them to settle into hibernation in their boarding place, Star Koi in Everett, where they were cared for at a cost of \$10 each per month. Actually, two of them escaped capture at that time, one silver and one red; when caught, they were moved to the upper pond of the Woodland Garden. (The young koi, as usual, had all been eaten by herons and hooded merganzers.) One of the turtles was housed in a box, and two others were kept in the southeast part of the pond where sufficient water remained. This much-loved wildlife will be returned when the water warms up.

When muskrats return, they will be removed by a licensed agency, as they have been in the past. Otters, an occasional problem, will be kept out of the pond by screening the outflow.

Budget

The budget for this impressive project is \$390,000. A large portion of it came from the Seattle Parks Department's Cumulative Reserve Fund, which is directed toward major maintenance projects. Also included in the budget was the cost of water recirculation and filtration, which was supported by the Seattle Public Utilities Department, drawing \$115,000 from the Water Smart Program and \$23,000 from the Office of Sustainability and Environment.

Celebration of the Garden's Completion

At 11:00 a.m. on March 29, there will be a festive opening of the Japanese Garden, including a traditional Shinto blessing. Please join us for the celebration! ♪

Elizabeth Moses serves on the Japanese Garden Advisory Council and Jan Pirzio-Biroli, on the "Bulletin" Editorial Board.

Plants to delight
Plants to please

Magnolia Garden Center

3213 W. Smith St. in Magnolia Village
10 min from Downtown, Ballard or Queen Anne

206-284-1161

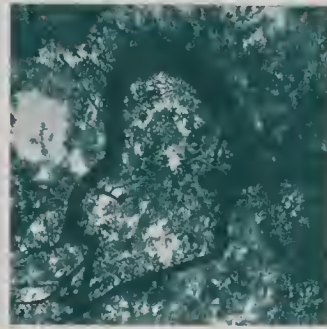
www.magnoliagarden.com



NORTHWEST NATIVES OF CHO



*Join us in supporting the Washington Park Arboretum, a living museum,
a garden of discovery and an outdoor classroom.*



A Gift for the Washington Park Arboretum - a spectacular urban green space.

☐ YES I wish to support the Arboretum Foundation with a gift of \$ _____

This gift is: ☐ In Memory of _____

☐ In Honor of _____

☐ Occasion _____

Please send acknowledgement to:

Name _____

Address _____

City _____ State _____ Zip _____

This gift given by:

Name _____

Address _____

City _____

Phone (Day) _____

State _____

Zip _____

(Eve)

Please send acknowledgement to:

Name _____
Address _____
City _____ State _____ Zip _____

This gift given by:

Name _____
Address _____
City _____ State _____ Zip _____
Phone (Day) _____ (Eve) _____

☐ I'd like to become a member of the Arboretum Foundation. Enclosed is:

☐ \$25.00 individual ☐ \$35.00 family ☐ \$50.00 friend ☐ \$100 advocate

☐ Check enclosed, payable to **The Arboretum Foundation.**

☐ **Enclosed is my employer's gift matching form.**

☐ Please charge my Mastercard / VISA \$ _____

Card # _____ Expiration Date _____

Signature _____

All contributions are tax-deductible to the extent allowed by law. For information about membership, additional gift and commemorative opportunities, please call (206) 325-4510.

CE

First
Class
Postage




The Arboretum Foundation
2300 ARBORETUM DRIVE EAST
SEATTLE, WA 98112-2300

CE


BY

NANCY DAVIDSON SHORT

~



It's spring! And I bet you are trying to decide whether to add to your garden a new Japanese maple, a Tasmanian *Eucryphia*, or perhaps a rare Chinese *Camellia*. Great! But don't forget, as we build, rearrange, or add to our gardens, the Pacific Northwest also offers an amazing array of beautiful native plants for consideration. Native plants don't need space of their own. They are good mixers. Though we can and do grow plants from all over the world, it is fine Northwest natives that celebrate this region, giving our gardens a unique sense of place.



With a bit of investigation, you will discover that a Northwest native plant list includes groundcovers, perennials, shrubs (large and small), vines, grasses, ferns, and trees. Bulbs too. As various as they are, native plants have one very important thing in common: drought resistance. Their ability to grow and thrive with minimal water, or even no water at all,

Our native currant, *Ribes sanguineum*, with pendulous, red blossoms "dangling like earrings along every branch," and evergreen huckleberry, *Vaccinium ovatum*, whose small, white flowers are followed by highly prized, purple-black fruit. In the Arboretum, evergreen huckleberry may be found at grid coordinates 39-1W.

during bone-dry summer months, makes them well worth considering.

According to John Grant, writing in "Trees and Shrubs for Pacific Northwest Gardens," "Native plants should always be considered a basic part of the garden. The Golden Rule for selecting plant material is to start with those plants native to the region which are best suited to your particular cultural condi-

tions, then combine them with plants which grow under similar cultural and climatic conditions in other parts of the world."

That said, let's look into what's happening right now to some Northwest natives. Every year, a truly incredible number of "new" plants appear on the market. In the case of native plants, what we see, and will continue to see more and more often, are "selections," plants

How Can You Learn More About Native Plants

Consider joining the Arboretum Foundation's Native Plant Study Group, which, in warm months, takes field trips to identify native plants, and between October and March, works in the Arboretum and invites speakers to continue their education. Contact the Foundation office for further information. Currently, this group is helping restore understory plants in three sections of the Arboretum and is designing new information to help visitors identify native plants.

Or inquire about membership in the Washington Native Plant Society, dedicated to promoting "the appreciation and conservation of Washington's native plants and their habitats through study, education, and advocacy." Their office may be reached toll free at 888-288-8022. Their web address is www.wnps.org.

Resources

Arthur Lee Jacobson, gardener, arborist, horticulturist and writer, has just published his newest book, "Wild Plants of Greater Seattle." It is not only an excellent "read,"

it is also well illustrated with drawings that should make plant identification easier. In addition, it is an important declaration of the ecological value of wild plants for the future good health of the earth. Another book to be both enjoyed and used is Arthur Kruckeberg's "Gardening with Native Plants of the Pacific Northwest." It is just as essential today as it was when originally published in 1982. A final, helpful reference, easy to slip into your jacket pocket, is "A Field Guide to the Common Wetland Plants of Western Washington and Northwest Oregon," edited by Sarah Spear Cooke and published in 1997 by the Seattle Audubon Society (phone 206-523-4483).

In addition, Stephanie Feeney's "Northwest Gardeners' Resource Directory," revised and updated by Debra Prinzing, is due to be released this spring. It will help locate nurseries that specialize in native plants. Between April and October, the Arboretum Foundation's Plant Donations area is a splendid source of native plant material. It is open from 10 a.m. to 2 p.m. every Wednesday and the second Saturday of each month. ~

either chosen by growers for an unusual “new” characteristic, or plants found in the wild that are clearly mutations or aberrations, new forms of existing plants. They may originally appear in arboreta, botanical gardens, parks, even back yards.

Finding a “new plant” is one thing, but building up a sizable stock and getting it on the market takes years. Yes, tissue culture may produce many plants at one time, but not all come true, and both the equipment and the skill are costly to acquire. Nevertheless, as horticulturist Jim Fox reports, “the pipeline is full.” And many fine selections are already available.

Choice Vine Maples

Take our familiar vine maple (*Acer circinatum*), for example. Collected by David Douglas and introduced in England in 1817, it is a graceful 15- to 20-foot understory, forest tree, often with several trunks. It fits well into a small garden. Summer foliage of fresh green is followed by a fall display of clear yellow, if the tree grows in shade, or neon red and orange if in the sun. Vine maple accepts any reasonably decent soil and transplants readily.

Two selections are available: *Acer circinatum* ‘Monroe’ seems to have the same form as the species, but its leaves are as deeply cut and as feathery as those of the Japanese maple (*A. palmatum*). *Acer circinatum* ‘Monroe’ was found by Mr. Wendell Monroe in 1960, high in the Cascades in Oregon’s Willamette National Forest. *Acer circinatum* ‘Little Gem’ is a genetically dwarfed vine maple. Slow-growing with short internodes and small leaves, it eventually makes a tight ball four feet tall and wide. It was propagated from a witches’ broom found growing on a vine maple in Vancouver, British Columbia’s Stanley Park.

Currant Selections

Our spring flowering currant (*Ribes sanguineum*) is a superlative deciduous shrub,

first collected by Archibald Menzies, physician and botanist aboard the *Discovery*, Captain Vancouver’s flagship on his voyage of West Coast exploration in 1793. By 1817, this lovely native currant had appeared in English gardens.

An upright shrub, rounding as it matures to be six- to ten-feet tall, our native currant blooms in the Northwest woods, west of the Cascades, in March and April. It flowers on bare branches just before its leaves unfold. Many small pink to red blossoms cluster around pendulous two- to three-inch stems, dangling like earrings along every branch. Wild currant grows well in all but bog or heavy clay soils, in sun or part shade. To curb enthusiastic growth and increase bushiness, long shoots may be cut back after the flowers fade.

Many new varieties have been selected from seedlings, primarily for the color and size of their flowers. *Ribes sanguineum* ‘Brocklebankii,’ which first appeared in Mr. Brocklebank’s garden in England, has yellow variegated foliage. Smaller and slower growing than the species, its leaves are definitely flushed with yellow, especially in the shade. Its flowers are pink.

Among white-flowered varieties, *Ribes sanguineum* ‘Henry Henneman’ opens three-inch-long racemes of purest white flowers. A real show-stopper, it grows vigorously in my garden, already stretching to ten feet; also recommended is ‘White Icicle.’

Of the pink-flowered selections, the red buds of *Ribes sanguineum* ‘Claremont’ open pale pink to white, and ‘Poky’s Pink,’ a smaller three- to four-foot shrub, has pastel pink flowers. Another favorite, introduced by the Strybing Arboretum in San Francisco, is *R. sanguineum* ‘Strybing Pink.’ For true reds, darker than the species flower, look for ‘Pulborough Scarlet,’ ‘Elk River Red,’ or ‘King Edward VII.’

A Smaller Salal

Salal (*Gaultheria shallon*) has earned some attention too. This three- to four-foot, forest



Mahonia aquifolium, commonly called Oregon grape, can be both an elegant garden plant and a source of fruit for coveted tart preserves.

groundcover, with leathery, evergreen foliage and tender green new growth, offers clusters of lantern-shaped, little pink flowers followed by dark blue berries. It spreads slowly but persistently by underground runners. As any florist will tell you, it is a long-time favorite in bouquets. We take it for granted, but it is indeed a garden-worthy plant. Like so many natives, it is almost impossible to transplant successfully, but some growers and nurseries are carrying it. A charming selection, *G. shallon* 'Snoqualmie Pass' grows about 12 inches tall with evergreen leaves, pink flowers and blue berries, all proportionally smaller. In its two-year stay in my garden, it has shown little tendency to spread.

***Mahonias*: Tough & Talented**

Mahonias are fast increasing in popularity, and there are many new varieties, selections

of the native *Mahonia aquifolium* and hybrids between species, found in nature or deliberately crossed. Tall Oregon grape (*M. aquifolium*) deserves special attention; this shrub produces stems that can reach six feet tall, nine feet in the wild. (Its native cousins, *M. nervosa*, which is rarely more than two feet tall, and *M. repens*, a groundcover, are also useful garden plants.) *Mahonia aquifolium*, as it develops, grows more stout, vertical, basal stems, each surrounded by whorls of highly polished, evergreen leaves with spiky edges, larger than holly leaves but not as sharp. In March, the tops of every stem erupt into bunches of brilliant yellow flowers. Tough and hardy, growing in sun or shade, it is beautiful individually and excellent as part of a hedge or barrier. (Mahonias withstand hard clipping, but, of course, you will lose bloom unless you prune after flowering.)

continues on page 23

For the Best Quality
Rhododendrons
in the Northwest...

Rely on Briggs Nursery.

Ask for them at your
favorite garden center.





Quality that Grows™
Briggs nursery, inc.
Wholesale Growers Since 1912

Another fine company of

International
Garden  **Products**



 **Salix babylonica var. pekinensis 'Pendula'** z6 d2" sababpe \$12.00
 Our Eric Hammond's collection of the true Babylon Weeping Willow in China in 1997, where he was
 duly impressed with its elegant and graceful habit of growth. With bright green stems, the habit of
 growth is much taller than wider, and creates a much different creature than the Weeping Willows in
 commerce. Expect trees ultimately to 45 ft., ideally suited to moist areas. Avoid septic drainage fields!
Salicaceae China


Sapium japonicum HC 970268 z8 d4" sajap268 \$10.00
 An uncommon tree in cultivation with rounded, deciduous foliage. Yellowish green flowers produced
 in June in axillary racemes, resulting in three-lobed fruit. Our collections from Cheiju-do, S. Korea, this
 small tree offers some of the best autumn color of any woody plant in our collection, in shades of
 lacquered oranges and reds. Perfectly tame in the Pacific Northwest, this should not be considered for
 landscape use in the steamy southeast and deep south due to invasive potential. 25 ft. 
Euphorbiaceae S. Korea

Sorbus

Though I had become acquainted with the European Mountain Ash during my college days
 at Michigan State University, it was not until I moved to Seattle in 1983 that I became aware of their
 astounding diversity. I lived then at the Stone Cottage on Lake Washington Boulevard in the Arbore-
 tum and had 250 acres of plant collections at my doorstep. On daily winter walks through the Arbo-
 retum, I would be continually pulled from the paths by small trees or shrubs that I was certain had
 come into early blossom. The ruse of beaming whites, pinks and deep reds, however, would arise
 from clusters of fruit from a well-vetted collection of *Sorbus* species from around the world. When
 we purchased the property that would become Heronswood in 1987, a pair of *Sorbus forrestii* given
 to me from the late director of Arboretum, Brian O. Mulligan, who had a special fondness for the
 genus, were among the first to be included in the garden. It is mid-November as I write this, and
 yesterday I looked out to this pair that have matured commendably in fourteen years. They are heavily
 fruited with copious clusters of glistening white, pink-flushed berries, which will soon enough be
 devoured by equally immense flocks of robins, Steller's Jays, Varied Thrushes and Common Flickers.
 But before the feast is finished, I will recall those winter walks at the Arboretum and all I have learned
 of this genus subsequently in my excursions to Korea, Japan, Nepal, China, Taiwan, Vietnam as well
 as in our own mountain ranges of Washington State. From dwarf prostrate shrublets bearing finely
 textured pinnate foliage to dense columns of broad platinum leaves, the Mountain Ashes are an ex-
 pressive and highly ornamental contingent of hardy shrubs and trees that deserve a place in every
 garden.

Sorbus hupehensis DJHC 360 z6 d4" sohup360 \$12.00
 Growing beneath large specimens of *Abies fabri*, in a rich botanical area near Shu Du Hu on the
 Zhongdien Plateau, grew this variable species with fruit color ranging from pure white to deep rose-
 pink. These are collected from the darkest pink-fruited specimen I found, certainly more striking than
 any I have seen in cultivation up until this point. These small rounded-crowned trees to 25 ft.
 Full sun or open shade in well-drained soil with adequate irrigation. *Rosaceae* Yunnan

Sorbus khumbuensis sakhu \$8.00
 I was recently supplied the new name of this lovely r
 in the past. Native to the Khumbu district of east
 foil to the clusters of pink flowers in early spring, r
 summer and early autumn. We have developed
 southeast side of our home.

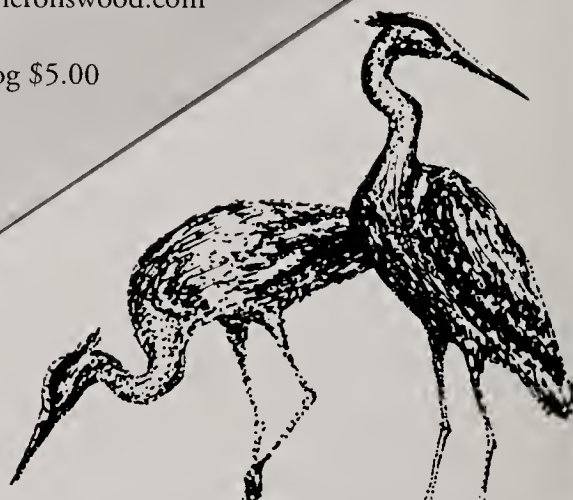
 **Sorbus rehderiana DJHC 98133**
 My collections of this species on the eastern
 providing a dazzlement of autumn tones in
 fruit colors as well on rounded trees to 3'
 tremely deep rose-red fruit produced in 5'
 we expect the seedlings to be true. Full

Sorbus sargentiana EDHCH 97149
 An extraordinary species that we hav
 very large, leathery pinnate leaves, r
 in autumn. Of the compound leav
 over time, to 20 ft. x 20 ft. Eric's r

HERONSWOOD NURSERY

7530 NE 288th Street
 Kingston, WA 98346
 (360) 297-4172
www.heronswood.com

Catalog \$5.00



Northwest Natives of Choice

continued from page 20

Selections from *Mahonia aquifolium* seedlings have yielded several cultivars. 'Compacta,' a dwarf form, grows slowly into a dense, two- to four-foot evergreen mound. In winter cold, the foliage turns bronze and red, especially if the shrub is grown in the sun. 'Golden Abundance,' a densely foliated, upright six-foot shrub, produces on its many stems a true abundance of yellow flowers.

Of the *Mahonia* hybrid crosses in local nurseries, perhaps *Mahonia* 'Arthur Menzies' deserves first place. This shrub was the lone survivor in a flat of *M. lomariifolia* seedlings at the Washington Park Arboretum after a particularly hard freeze. It was introduced into the trade in 1961. My three-year-old 'Arthur Menzies' is almost six feet tall and five feet wide. (I have seen one specimen at least 15 feet tall.) It has four, stout trunk-like stems, each crowned with 20 or more eight-inch-long flower spikes of brightest yellow gold. It begins blooming in December and continues through January. 'Arthur Menzies' is a major presence in my garden. And if it grows too tall, it can be pruned to maintain a smaller stature.

Of the others hybrids available, usually crosses between *Mahonia lomariifolia* and *M. japonica*, I grow five. All bloom between November and February. *Mahonia* x *media* 'Hope,' sporting over two-foot-long, horizontally held leaves with many leaflets, can grow to 15 feet and is said to have fragrant flowers. 'Lionel Fortescue' comes from the garden of Mr. Fortescue in Devon, England. Although my plant has but one stem, it is almost five feet tall and has bloomed gloriously. Its flowers, on 10-inch spikes, have the faint fragrance of narcissus.

Mahonia x *media* 'Underway' is burly and branching with lots of bloom. *M. x lindsayae* 'Cantab,' newly planted, is supposed to grow

into a mounded, six-foot shrub with arching leaves and fragrant yellow flowers followed by blue berries. It appeared in the University Botanic Garden in Cambridge, England, in 1961, a voluntary cross between *M. siamensis*, a tender species, and *M. japonica*. 'Cantab' is reputed to be very fragrant. We'll see. The last mahonia on the list, *M. x media* 'Winter Sun,' is also the first to bloom, in mid-November. Between four and five feet tall, 'Winter Sun' has four stout stems and plenty of flowers of the brightest yellow.

Keep Your Eyes Open!

Other native species are also receiving attention: evergreen huckleberry (*Vaccinium ovatum*); pink-berried forms of snow berry (*Symphoricarpos albus*); kinnikinnik (*Arctostaphylos uva-ursi*); and double flowered forms of *Trillium ovatum*. Watch for introductions, ask nurseries about them, and even more important, keep your eyes open for mutations and aberrations in your own garden, along country roads or hiking trails.

If you see an unusual plant, think before you dig: It is illegal to dig native plants, except on your own property! Instead, examine the plant closely. Try to identify its family or genus, if not its species. Photograph it if you have a camera handy. Use a notebook instead of a shovel, noting its location, flower color, foliage, fruit or seeds. With luck and patience, you may be the next keen plantsman to introduce a new selection of one of the Northwest's treasures.☺

Nancy Davidson Short, a long-time gardener, journalist, and Arboretum Foundation member, writes a regular column, 'Garden Notes,' in the Foundation's newsletter "Ground Work."

Horticultural Exhibits, Alluring Plant Collections

BY JOHN A. WOTT

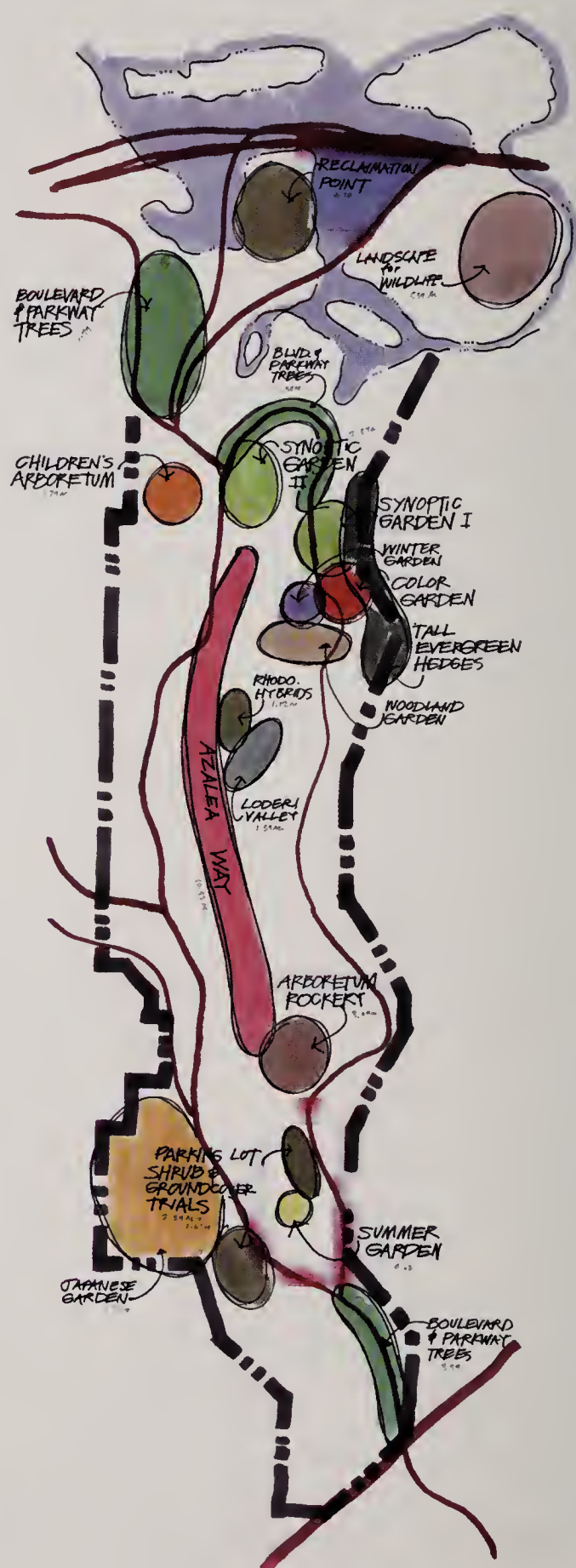
When Washington Park Arboretum's Joseph A. Witt Winter Garden was extensively redesigned and re-dedicated in 1988, no one had any idea that it would become such a winter-season destination. Capably designed by Iain Robertson, of the Department of Landscape Architecture at the University of Washington, its southwesterly slope provides a series of landscaped beds in which plants with winter interest are featured. Starting in December and lasting through March, each week reveals one or two new plants. Many Arboretum visitors come back on a regular basis in order to catch every plant at its peak. In fact, travelers from other cities visit in order to find inspiration for their own parks.

While we cannot be sure of what James Dawson visualized for the Woodland Garden, Loderi Valley, the Rockery, or the Pinetum, we do believe they were designed for enjoyment as well as to teach visitors how to use plants successfully. Today, this is an even more important way to exhibit the Arboretum's collections. Even casual wanderers can point to a plant as they stroll through the Arboretum and say, "Oh wouldn't that look nice in our garden!"

The Arboretum's master plan calls for a number of new or renovated exhibits to display plants in ways that help visitors easily visualize possibilities for their own gardens.

New Landscape Gardens

One of most interesting ideas is that of a children's arboretum (or garden). Many other public gardens have recently developed such



gardens, and all have become tremendously successful. The scale and themes of both plants and other features would be appropriate for learning by young children.

The majority of Arboretum visitors either have a short amount of time to “see everything” or are unable or unwilling to walk the entire 230 acres. In order to help these visitors understand the Arboretum’s intent, the master plan proposes two types of “synoptic gardens”—gardens that try to represent a larger area of the Arboretum in a smaller, more accessible version.

Synoptic Garden I, located near the Graham Visitors Center, would be designed to represent the major plant collections of the Arboretum. For example, it might contain Japanese maples from the Woodland Garden, hybrid rhododendrons from the Puget Sound Rhododendron Hybrid Garden, and plants with winter interest from the Witt Winter Garden. It could be designed to provide a mini-walk for interested visitors.

Synoptic Garden II would present an overview of the Arboretum’s landforms, including wetlands, creek beds, slopes and uplands, on which would be planted native woody species as well as those of ethnobotanical interest. This, in essence, would be a representative native plant garden.

One of the most exciting proposed gardens is currently being called a Color Garden. On a late summer afternoon, while walking in the Arboretum, I envisioned strolling into a garden, perhaps similar in size to the Winter Garden, and finding it full of woody plants in their prime. Surely this would become another destination garden!

Inspired Renovation

When the State Route 520 floating bridge was constructed, a sense of entrance into the northern part of the Arboretum was lost. The master plan calls for redesigning Foster Island Boulevard to include an *alée* of trees similar

to the south Lake Washington Boulevard entrance.

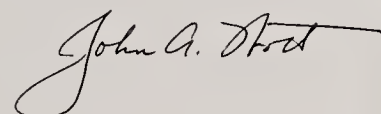
There has always been a series of hedge-like plants along the Broadmoor fence, but unfortunately most are so well hidden or so far off the beaten path, that few people observe them. The master plan calls for extensive renovation of these fence areas to include a number of demonstration hedges for visitors to gather ideas as well as offer screening.

An area of particular historic interest is the rockery, located downhill from the Lookout Gazebo. This historic rockwork needs renovation, and while that is happening, it would be possible to create a large-scale rock garden of woody plants. This area is quite visible from the area around the large pond on Azalea Way.

After the current green- and lath-houses are razed, new ones will be constructed; around these areas will be additional small demonstration gardens, such as the current Signature Bed. Plants for these demonstration areas may actually be grown in the new greenhouses.

A number of other currently landscaped areas will be maintained or improved: The Winter Garden, a joy from December through March, and the Woodland Garden, with its renowned collection of Japanese maples and historic ponds and streams, are already inspirational destinations for Arboretum visitors. They will remain so. Azalea Way will be renovated with the addition of improved, disease-resistant plant selections according to its historic, spring theme including cherries, rhododendrons, azaleas and dogwoods. And the Puget Sound Rhododendron Hybrid Garden and Loderi Valley will continue to entice visitors who admire rhododendrons.

With time, Arboretum visitors will find an increasing number of gardening ideas upon each visit to the Arboretum. ∞



John A. Wott, Director,
Washington Park Arboretum

Happy Birthday, Great Plant Picks!

BY RICHARD HARTLAGE

Great Plant Picks is one year old! And in the past twelve months, this new program of The Elisabeth C. Miller Botanical Garden has received more positive response than we ever could have imagined. Last year, judges were asked to pick fifteen plants in three categories: trees & conifers, shrubs & vines, and perennials. (See the "Bulletin," Spring, 2001.) This year, Great Plant Picks judges have added 64 selections to the list. Check our Web site: www.greatplant-picks.org, for a photo library of all selections.

See for Yourself

Although many of us grow wonderful plants in our personal gardens, few of us are able to see and evaluate a large collection of related species. Those of us who have access to the Washington Park Arboretum, however, have a chance to see many of the judges' selections and decide for ourselves whether we agree with their choices. Fine examples of many Great Plant Picks trees and shrubs live in the Arboretum. So put on your walking shoes and grab a grid map at the Visitors Center. You have a spectacular walk awaiting!

2002 Great Plants Picked

Among this year's Great Plant Picks are

trees and shrubs that are at their best in spring. Here are some of them:

Trees:

Acer circinatum (vine maple) 33-2W,
Japanese Garden, many additional locations

Acer palmatum 'Osakazuki' (Osakazuki Japanese maple) 33-1W, 33-B, 33-3E, 34-3E

Cornus mas (Cornelian cherry) 33-B, 33-4W, 36-B

Sciadopitys verticillata
(Japanese umbrella pine) 17-6E, 42-6W

Shrubs:

Camellia x williamsii 'Donation' 12-7E, 14-7E

Enkianthus campanulatus 'Red Bells'
Graham Visitors Center

Ribes sanguineum 'King Edward VII'
(King Edward VII flowering currant) 31-1E, 31-2E

Sarcococca hookeriana var. *humilis*
(dwarf sweet box) 35-1E, 35-2E.

Viburnum tinus 'Spring Bouquet' 34-B

And don't forget to visit some of the spring-blooming plants chosen last year:

Corylopsis pauciflora (buttercup winter hazel) 6-4E

Rhododendron 'Ken Janeck' 27-1W, 40-3E

Crataegus x lavalleyi (Lavalley hawthorn) 31-3E

Richard Hartlage is the Director/Curator of the Elisabeth C. Miller Botanical Garden in north Seattle.



Northwest Flower & Garden Show - Winner of the People's Choice Award

*An enticing selection of
common and uncommon plants*

8000 Roses • Rare Perennials • New Annuals • Unique Garden Gifts

CHRISTIANSON'S
Nursery & Greenhouse

15806 Best Rd • Mount Vernon

360-466-3821

www.christiansonsnursery.com Open Daily 9-6





Rhododendron 'Phyllis 'Korn' hybridized by Bob Korn in 1969, has an upright, well-branched habit and large white flowers with a small currant red blotch.

CONTINUING INSPIRATION: Rhododendron Hybridizers of the Middle Era

BY LEE C. NEFF

Thanks to the "RumDum Club" and the enthusiasm for rhododendron hybridizing generated by the buzzing activity of these friends who shared pollen and fussed passionately about breeding rhododendrons, the Puget Sound region became a vibrant center of hybrid rhododendron creation. (See the "Bulletin," Spring, 2001.) This seminal era of hybridizing is celebrated

in the Early Era bed of the Arboretum's Puget Sound Rhododendron Hybrid Garden.

The energy of these intrepid early plantmen lured others into hybridizing, and by the end of the 1960s, a new generation of rhododendron enthusiasts was carrying on the RumDum Club's legacy. Important middle era contributions were made by many avid hybridizers, including Britt Smith, an aeronau-

tical engineer who, fortunately, held the conviction that retirement should be a constructive physical activity.

But not all of these eager plant breeders waited until retirement. Joseph Witt introduced 'Golden Witt' in 1966 when he was serving as the Arboretum's curator of plant collections. As one current reference states, when 'Golden Witt' was first shown in Seattle, "it was acclaimed as one of the finest yellows yet to be introduced." Witt also created 'Chief Joseph,' which he described in 1971 as "a low, spreading plant with flowers of reddish purple on the outside and orange red inside; its normal flowering period is mid May, but it has a tendency to flower in the fall as well." Both of these cultivars are among the 30 plants growing in the Hybrid Garden's Middle Era bed.

Even the names of their companions are tantalizing: 'Black Sport,' a rich red with a black-red blotch on the upper lobe, was created by Ben Nelson. 'Unique Marmalade' is a pink and gold confection bred by Joe Davis. 'Peste's Firelight,' created by Fred Peste, has olive-green foliage and red buds that open to exotic, wavy-edged, yellow-pink flowers with red spotting.

The color range is wide and glamorous and reveals how the hybridizers of the middle years used the yellow-flowered hybrids of their mentors to produce stronger yellow, apricot-peach and even "tropical colors." Foliage shape, texture and color were also increasingly important to these plantsmen, and they began to use *Rhododendron yakushimanum*,



Joe Davis's *Rhododendron* 'Unique Marmalade' is a low-growing plant with glossy leaves and red buds opening to wavy-edged, pink and orange flowers.

R. pseudochrysanthum and *R. bureavii* in their crosses.

Fred Peste used *Rhododendron yakushimanum* in creating 'Centennial Celebration,' named in honor of Washington State's centennial; it bears pale orchid, frilly blossoms and leathery foliage. Bob Korn registered only two of his crosses. Both of them, 'Robert Korn' and 'Phyllis Korn,' with elegant, creamy white blooms, can be found in the Middle Era bed.

Elsie Watson, who has been hybridizing for over 35 years and has registered only seven rhododendrons from the nearly 500 crosses

she has made, is represented by 'Pink Prelude' and her 1965 cross, 'Blue Boy.' An upright plant with narrow, dark green foliage, 'Blue Boy' has violet, wavy-edged blossoms with an almost black blotch; blooms are held in a tight, round truss.

As she once commented to Gwen Bell, "This coming May, when the rhododendrons in my garden are coming into bloom once again, and the neighborhood children wander through, I hope that one of my plants will have a lasting impression on one of them, as my neighbor's rhododendrons had on me.... And who knows, maybe another hybridizer will be born."

"Continuing Inspiration" is the second in a series of articles about Northwest rhododendron hybridizers and their remarkable work. For further information, read "The Pacific Coast Rhododendron Story: The Hybridizers, Collectors and Gardens" by Sonja Nelson and the Portland Chapter of the American Rhododendron Society. ♡

"Serendipitous Design" in a Woodland Garden

continued from page 4

London pride saxifrage), a vertical (like a grass), or a flat-top (*Achillea*).

A bit farther down the bed I have another one of my favorite "vicious invasives"—*Maianthemum dilatatum*, also known as false lily-of-the-valley or beadruby. It, too, is a native groundcover. It looks like a carpet of tiny hostas, deeply veined and shiny. But don't plant this one in your own garden until you are quite sure that you know what you're doing. It is very vicious and invasive, and I don't think this genie can be put back in the bottle.

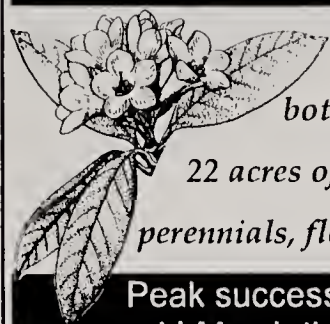
At the end of the year, the vine maple leaves fire up, becoming the focal point of the wild garden as the rest of it subsides. For a while, the *Vancouveria* holds on, turning a faint yellow before disappearing altogether. In this area, I leave the fallen leaves, to mimic nature and feed the system of worms, bugs and birds that make a garden even more interesting. In the winter I often catch sight of robins digging through the leaves. I am thankful for anything that moves in those dark and silent days.

By mid-winter we are back to the barren, lichen-covered vine maple branches, becoming ever more interesting with age.

Do feel free to use this combination in your own wild section or as a transition to the woods. I like gardening, not only because one gets credit for making lucky combinations ("serendipitous design"), but also because it is perfectly OK to copy others' serendipity. We should assign that a plausible sounding euphemism too. How about..."recreating successful plant communities?" ~

Cass Turnbull is the founder and spokesperson for PlantAmnesty. The complete collection of her articles on pruning will be published in book form by Sasquatch Books next winter.

Rhododendron Species Botanical Garden



Visit our world-class
botanical garden featuring

22 acres of rhododendrons, bulbs,
perennials, flowering trees & shrubs.

Peak succession of bloom is
mid-March through mid-May .

2002 SPRING PLANT SALE APRIL 5 & 6

Browse our Gift Shop and Plant Sales Pavilion
for a unique selection of gifts, books,
apparel & plants for sale.

General admission \$3.50 Seniors \$2.50
March - May 10-4 pm closed Thurs.

Group rates & guided tours call (253) 661-9377

Memberships available
Mail order plant catalog \$4.00, seasonal

PO Box 3798, Federal Way, WA 98063
2525 S 336th St., Federal Way, WA 98003

www.rhodygarden.org

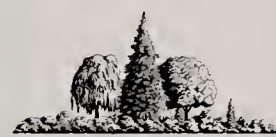
THE ARBORETUM GIFT AND BOOK SHOP

Books & Gifts for the garden lover

◆
Open daily,

10:00AM—4:00PM

Graham Visitors Center
2300 Arboretum Drive East



Arboretum Foundation



Guides for Growing Ferns Gracefully

BY SUE OLSEN

Ferns are indispensable components of Northwest woodland gardens. And for some of us, they are the stars. For those who grow ferns in well-balanced plant communities, as well as gardeners whose gardens are full of *only* these elegant plants, new books about ferns are always tempting. Timber Press has recently made two such works available.

The "Fern Grower's Manual," by Barbara Joe Hoshizaki and Robbin C. Moran, is a revised and expanded edition of Hoshizaki's first Manual, written 25 years ago. Readers who enjoyed that work should appreciate the updated version.

While the core of the original work concentrated primarily on non-temperate species, the revised edition includes a significant number of commonly available temperate ferns. Entries are divided into six categories, with roughly 425 species in the semi-tender, tender, and very tender classifications, and 269 listed as semi-hardy, hardy, or very hardy.

Genera are presented alphabetically with a general introduction and botanical information

followed by commentary on individual species. The authors deliberately did not attempt to include many cultivars and hybrids. Cumbersome definitions for each type of species found in the first edition have been replaced by individual descriptions. In addition, most ferns are illustrated with a black silhouette of an individual frond and an occasional drawing to highlight diagnostic details. The Manual includes a separate section with some 50 color plates, and while not cited, several were taken in the garden of Jocelyn Horder of Poulsbo.

The first 150 pages of the book are devoted to guidelines for cultivating, propagating and troubleshooting fern pests and diseases (of which, fortunately, there are not many in our area). This detailed information contributes a great deal to the resource value of the book, for the beginner or the professional, and complements similar material presented in David Jones' well-illustrated and comprehensive "Encyclopedia of Ferns," also published by Timber Press.

Five appendices as well as a glossary and an exten-

The ostrich fern, *Matteuccia struthiopteris*, is a vigorous, easy-to-cultivate, vase-shaped fern which grows well in wet or ordinary garden conditions.



sive bibliography complete the volume, although Appendix IV, "Names of Pest and Disease Control Substances," might be more helpful if the control followed the listed pest or disease rather than preceding it.

Barbara Joe Hoshizaki is the President of the American Fern Society and has long been active in fern groups in Southern California and Florida. In addition, she has contributed numerous articles to *Baileya*, a botanical journal published by Cornell University. Robbin Moran is the Curator of Ferns at the New York Botanical Garden, formerly worked at the Missouri Botanical Garden, and has published extensively. Both share a special enthusiasm for tropical ferns, one of the Manual's strengths. (I've never seen a more complete treatment of *Platyceriums*—staghorns, for example). Readers looking for information on indoor ferns will find it especially useful.

**Plantfinder's Guide
to Garden Ferns**

When the first "Fern Grower's Manual" was published in 1975, ferns were the orphans of horticultural literature. All this has changed in the last 25 years, and fern enthusiasts are now fortunate to have a selection of references from which to choose.

Martin Rickard's "Plantfinder's Guide to Garden Ferns" is an outstanding choice for gardeners interested in using this graceful greenery in their Northwest gardens. Published originally in England, Rickard's Guide can be recommended to anyone with a serious or even tentative interest in hardy ferns. Rickard gives ferns horticultural life and botanical definition in discussing cultivation, propagation and identification. Along with John Mickel's "Ferns for American Gardens," it is one of the two best reference books available for learning about hardy ferns, their structure, habitat requirements and beauty.



Enhance
your home
and garden
with natural stone

BLUESTONE

FLAGSTONE

WALL STONE

STONE BENCHES

COBBLE STONE



**Lakeview
Stone &
Garden**

Open Monday
through Saturday
In Seattle, behind
University Village

4647 UNION BAY PLACE NE (206) 525-5270
Delivery available



Edgewood Flower Farm
2017 Meridian Ave East, Edgewood, WA
(No. Hill Puyallup) (253) 927-0817



Griswold Nursery

Quality Azaleas &
Rhododendrons since 1952.

12643 NE 70th Street
Kirkland, WA 98033-8537
Phone (425) 822-3078



Herron Gardens
Distinctive Northwest Design
 Ann Herron
 (425) 454-1216



Chip Kennaugh Co.
 Arboricultural Services

425-376-0106
 Fax: 425-558-4145
 6401 152nd NE
 Redmond, WA 98052
 E-Mail ChipKennaugh@earthlink.net

*Discover
 the Unusual*



*Propagated plants from
 the Washington Park
 Arboretum collection
 and donated plants
 from area gardens—
 great variety, and
 always some wonderful
 surprises*

Pat Calvert Greenhouse
 Tuesdays, 10AM to NOON, year-round

Plant Donations
 Wednesdays, 10AM to 2PM, through October
 Second Saturdays: 10AM to 2PM
 Both donated and propagated plants,
 through October



Arboretum Foundation
 2300 Arboretum Drive East, Seattle
 (206) 325-4510

Rickard's introductory and concluding chapters contain useful information on the life cycle of ferns, history of fern growing, botanical guidelines, propagation and special situations. But the primary feature of the book is the A-Z dictionary of fern profiles—immensely useful for gardeners, beginner to expert—of some 700 ferns and their cultivars. Long-time fern enthusiasts as well as newcomers to the world of ferns should be pleased with the photographs and excellent plates that accompany the text and give genuine meaning to “a picture is worth a thousand words.” (If the book has a shortcoming, it is that more photos were not included.) The British love cultivars, a fascination dating back to the Victorian fern craze of the 19th century. They are the primary focus of many of the plates, which are displayed in exceptional detail. As a collection, they provide outstanding help in distinguishing one cultivar from another, not always an easy task.

Rickard, through his professional association and friendship with the contemporary, inveterate, British plant explorer Christopher Fraser-Jenkins, has received specimens of many of Fraser-Jenkins' discoveries of potentially hardy fern material. Fortunately, many of these newly introduced species have indeed proved hardy in England and in the Northwest. These introductions are slowly being distributed. Rickard's book provides descriptions that cannot be found



**THE BERGER
 PARTNERSHIP, P.S.**

**LANDSCAPE ARCHITECTURE
 SITE PLANNING**

2021 Minor East
 Seattle, WA 98102
 (206) 325-6877

www.bergerpartnership.com

elsewhere, bringing us up to date on these and other lesser-known species.

Rickard has served as President of the British Pteridological Society and as editor of their publication, the "Pteridologist." In addition, he owns Rickard's Hardy Fern Nursery. His fern displays regularly win gold medals at prestigious horticultural shows in England. He brings this combination of expertise as writer, researcher, propagator and grower to the pages of the Guide, making it a valuable resource for anyone interested in learning about this unique area of the plant kingdom. As a grower and long time fern enthusiast I find that the library shelf always has room for another good book on ferns; Rickard's work will long be at the top of my list of "most valuable" references. ♪

Sue Olsen is the owner of Foliage Gardens, a specialty mail-order nursery featuring hardy and exotic ferns and Japanese maple cultivars. She was a founding member and first president of the Hardy Fern Foundation and edits its quarterly journal. Sue may be reached at foliageg@juno.com.

Bibliography:

Hoshizaki, Barbara Joe and Robbin C. Moran. "Fern Grower's Manual." Portland, OR: Timber Press, 2001. ISBN: 0881924954, \$59.95.

Rickard, Martin. "The Plantfinder's Guide to Garden Ferns." Portland, OR: Timber Press, 2000. ISBN: 08881924768, \$34.95.

Steamboat Island Nursery

**uncommon trees, shrubs, vines,
perennials, grasses, annuals
and temperennials
also pnw native plants**

8424 Steamboat Island Road
Olympia, Washington

360-866-2516

e-mail: steamboat@olywa.net

Open Sat & Sun 10-5 or by appointment



Family Owned and Operated

•
Five Acres of Superior
Quality Plants

•
Reference Library

•
Expert Staff



**WELLS MEDINA
NURSERY**

Where Gardeners Grow.

8300 N.E. 24th Street – Just off 520 in Medina

425-454-1853

Experts in Horticulture Since 1956



- Homegrown annuals and perennials
- Trees and shrubs
- Indoor foliage
- Garden accessories
- Containers
- Award-winning floral shop in Woodinville

Molbak's®
Everything gardening.

www.molbaks.com

WOODINVILLE
13625 NE 175th Street
425-483-5000

SEATTLE GARDEN CENTER
1600 Pike Place
206-448-0431



Arboretum Foundation
2300 Arboretum Drive East
Seattle, WA 98112
gvc@arboretumfoundation.org
www.arboretumfoundation.org

**An arboretum is a living museum
of woody plants for research,
education, conservation and display.**

NONPROFIT ORG.
US POSTAGE
PAID
SEATTLE, WA
PERMIT NO. 126

Shirley Cuthbert-Pickens
20343 42nd Ave NE
Lake Forest Park, WA 98155